5

10

15

20

- 30 -

Abstract of the Disclosure

A coma aberration measuring method which takes the following steps. An object is exposed to light with a mask which bears a plurality of evaluation patterns each having at least two line patterns, wherein the width of lines in each of the plural evaluation patterns is different from that in any of the other evaluation patterns. Alternatively, a plurality of exposures are made on an object with a mask bearing evaluation patterns each having at least two line patterns, while varying the amount of light exposure for each exposure. As a result, a plurality of transfer patterns are created on the object. A detection is made as to in which one or ones among these plural transfer patterns either of the two line patterns is missing. Depending on the magnitude of coma aberration in the optical system used to make exposures, a line pattern with a certain line width among the line patterns to be transferred is not actually transferred. Therefore, the magnitude of coma aberration can be determined according to in which one or ones among the transfer patterns made on the object this phenomenon is observed.